

Amendments to the Drawings:

The drawing sheet attached in connection with the above-identified application containing FIGS. 11 and 13 is being presented as a new formal drawing sheet to be substituted for the previously submitted drawing sheet containing FIGS. 11 and 13. FIG. 11 has been amended to indicate that the fourth output is the average of the RGB and the K data. Appended to this amendment is an annotated copy of the previously submitted drawing sheet which has been marked to show the change presented in the replacement sheet of the drawings.

ANNOTATED SHEET

TITLE: Image Processing Apparatus and Image Processing Method
 INVENTOR: Sunao TABATA et al.
 SERIAL NO.: 10/054,990
 ATTORNEY DOCKET NO.: 016907-1367

RGB average	K	Output
$\text{RGB average} \leq K$	$K \leq S4$	K
$\text{RGB average} > K$	$K \leq S4$	K
$\text{RGB average} \leq K$	$S4 < K < S5$	K
$\text{RGB average} > K$	$S4 < K < S5$	$\text{RGB} + K$ average
$\text{RGB average} \leq K$	$S5 \leq K$	K
$\text{RGB average} > K$	$S5 \leq K$	K

FIG. 11

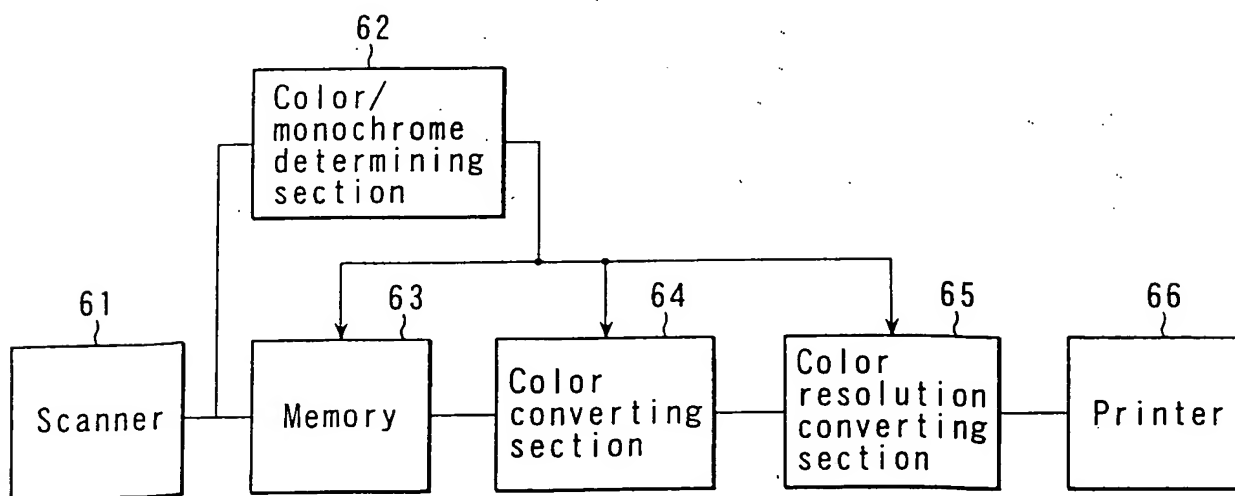


FIG. 13

REMARKS

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 2, 8, and 11 are currently being amended, and claims 1, 4-7, 9, 10, 13-16, 19, and 23 are being canceled.

This amendment changes and deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 2-3, 8, 11-12, 17-18, 20-22, and 24-25 are pending in this application.

In the Office Action, the drawings were objected to. By this Amendment, Fig. 11 has been amended to properly indicate that the fourth output is the average of the RGB and the K data. Accordingly, Applicants request that the objection be withdrawn.

Claims 1, 7, 10, 16, 19, and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sugiura (U.S. Patent No. 5,999,644) in view of Nako et al. (U.S. Patent No. 7,006,708). This rejection is moot in view of the cancellation of these claims.

Claims 2, 3, 8, 11, 12, 17, 18, 20, 21, 22, 24, and 25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Miyaza et al. (JP 05-207306) in view of Sugiura further in view of Matsunawa et al. (U.S. Patent No. 5,357,354). Claim 2, as amended, recites that an image processing apparatus comprises an image pickup element which picks up an image and outputs a color image signal and a monochrome image signal, a controlling section which outputs a signal that selects a color image output or a monochrome image output, and a converting section which receives an input of the color image signal from the image pickup element, and in the case where the color image output is selected by the signal from the controlling section, outputs the color image signal, and in the case where the monochrome image output is selected, outputs a signal obtained by calculating an average of an average value of color image signals and a value of the monochrome image signal, instead of the monochrome image signal, only when the monochrome image signal falls within a specific density area and the average value of the color image signals is greater than the value of the monochrome image signal, and outputs the monochrome image signal in other cases.

As explained below, none of the cited references discloses or suggests a converting section that, in the case where the monochrome image output is selected, outputs a signal obtained by calculating an average of an average value of color image signals and a value of the monochrome image signal, instead of the monochrome image signal, only when the monochrome image signal falls within a specific density area and the average value of the color image signals is greater than the value of the monochrome image signal.

In the rejection, it is admitted that Miyaza fails to disclose or suggest a converting section as recited in claim 2, but it is asserted that Sugiura and Matsunawa cure this deficiency. Sugiura merely discloses that, based on whether an original is discriminated as being color or monochrome, RGB data in BUF 311 are either input to a color/black and white conversion unit 314 or to a color compression unit 313. Sugiura in no way discloses or suggests calculating an average of an average value of color image signals and a value of the monochrome image signal nor outputting a signal based on that calculation only if monochrome image signal falls within a specific density area and the average value of the color image signals is greater than the value of the monochrome image signal. In fact, Sugiura fails to disclose or suggest comparing an average value of the color image signals to the value of the monochrome image signal.

As shown in Fig. 1, Matsunawa discloses that color image processing 20 converts RGB data to YMCK data, and monochromatic image processing 25 converts G data to monochromatic data (col. 4, line 66 – col. 5, line 5). Color code generating means 30 generates color code data from the RGB data and provides the color code data to a discriminating means 47, which discriminates whether the document is color or monochrome (col. 5, lines 6-16). If the discriminating means 47 discriminates a color image, a selector 32 selects the YMCK data output from the color image processing 20, and if the discriminating means 47 discriminates a monochromatic image, the selector 32 selects the monochromatic data output from the monochromatic image processing 25 (col. 12, lines 56-65).

Like Sugiura, Matsunawa in no way discloses or suggests calculating an average of an average value of color image signals and a value of the monochrome image signal nor outputting a signal based on that calculation only if monochrome image signal falls within a specific density area and the average value of the color image signals is greater than the value

of the monochrome image signal. Matsunawa also fails to disclose or suggest comparing an average value of the color image signals to the value of the monochrome image signal.

Accordingly, even if combinable, claim 2 is patentably distinguishable from the combination of Miyaza, Sugiura, and Matsunawa. Claims 3 and 17-18 are patentably distinguishable from the combination of Miyaza, Sugiura, and Matsunawa by virtue of their dependence from claim 2. Claims 8, 11, 12, 20, 21, 22, 24, and 25 are patentably distinguishable from the combination of Miyaza, Sugiura, and Matsunawa for reasons analogous to claim 2.

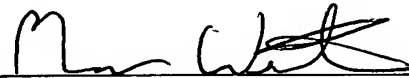
Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorize payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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By 

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